



City of North Miami Beach - Norwood Water Treatment Facility Fluoridation Discontinuation & System Decommissioning Plan

Executive Summary:

Following the Commission's formal resolution to discontinue the addition of fluorosilicic acid (fluoride) to the water system and in compliance with SB 700 (CS/CS/CS for SB 700, 1st Engrossed), the Norwood Water Treatment Facility has prepared and initiated a structured shutdown and mothballing of the fluoride feed system. This memo outlines the steps taken, options considered, and cost impacts related to the decommissioning process. This transition supports the City's broader goals of sustainable resource use, staff safety, and budget optimization, following the City's Strategic Goals.

1. Facility Overview and Impact Scope

The Norwood Water Treatment Plant serves over 175,000 residents across North Miami Beach and neighboring municipalities. Fluoridation was historically applied to the finished water at this facility, with an average daily production of 24-26 million gallons. The decision to remove fluoride represents a meaningful shift in our operations and regulatory reporting.

2. Fluoridation Status and Tank Inventory

As of May 21, 2025, the remaining volume of fluorosilicic acid in the main storage tank was approximately 0.51 feet, equating to ~243 gallons, or <5% of the tank's 5,500-gallon capacity. No new product has been ordered in since that date. Feeding operations will officially cease on June 9, 2025.

3. Decommissioning Options for Remaining Product

The following options were evaluated:

- Option I: Transfer remaining product to the day tank and feed as normal until depleted. Estimated depletion: 5–10 days. Requires direct handling of chemical, increasing safety risks.



- Option II: Neutralize residual chemical using sodium hydroxide (already on-site) and treat to a safe pH before disposal. Estimated cost: minimal but includes handling risks.
- **Option III (Selected):** Add finished water to the fluoride bulk tank and feed out gradually under normal conditions. Continuous monitoring will confirm when fluoride is no longer detectable and has reached standard baseline. This passive dilution method is cost-effective and avoids direct handling.

Estimated savings versus chemical removal quote (\$22,569.72) and labor costs are significant.

4. Chemical Cost Summary

- 2023: \$55,825
- 2024: \$79,750
- 2025 (YTD): \$18,876

Average annual cost over 3 years: ~\$51,484. Discontinuation redirects these funds toward system optimization, safety improvements, and future capital needs.

5. Monitoring and Compliance

- Operators will monitor fluoride 3x/day through grab sampling.
- AIT-5591 provides continuous digital monitoring via SCADA.
- Third-party lab testing will continue monthly (Vendor: AEL).
- Monitoring will continue through **June 30, 2025**, to verify depletion and establish baseline data.

Notification of the discontinuation is being prepared by the Water Quality Manager. The Florida Department of Environmental Protection (FDEP) and other relevant regulatory agencies will be formally notified of the cessation date and decommissioning actions, as required under state compliance procedures.

6. SCADA and Equipment Mothballing

All fluoride-related equipment will be:

- Locked out and tagged out.



- SCADA alarms disabled and archived.
 - SOPs updated; ERP Appendix E.18 amended to reflect mothball status.
 - Equipment inspection reports completed prior to shutdown to preserve audit trails and allow future reactivation if desired.
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7. Regulatory and Legal Timeline

Per SB 700, the effective date of statutory change is July 1, 2025. Under Section 31 and 32 of the bill, fluoride no longer meets the revised definition of a water quality additive (ref. 403.852(19), F.S.). All cessation efforts will be complete no later than June 30, 2025, ensuring compliance with Florida statute.

8. Transparency and Public Assurance

The utility will issue:

- A formal customer notice and FAQ, emphasizing water safety and compliance.
 - A final closure memo/report to Commission by **July 15, 2025**, outlining total cost savings and operational impacts.
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Conclusion:

The discontinuation of fluoride marks a significant transition in the facility's operations, but one that can be achieved with minimal cost and full regulatory compliance. Our team remains committed to transparency, efficiency, and safety throughout this process.

Key Milestones:

- **May 21:** Last tank level recorded (~243 gal)
- **June 9:** Discontinuing the Fluoride feed officially
- **June 10–30:** Monitoring continues (AIT-5591 + 3x/day operator checks)
- **June 30:** All operations and system mothballing completed
- **July 1:** Statute SB 700 takes effect



- **July 15:** Final closure memo submitted to Commission